

14 December 1979

MEMORANDUM

SUBJECT: Tehran During the Winter*

Tehran (35°40'N 51°26'E) is situated on an alluvial plain which slopes gently to the south from the foothills of the Elburz Mountains. The mean elevation of the city is about 1125 meters (about 3700 feet), but there is a difference of several hundred meters between the northern and southern boundaries. Within 15 kilometers to the north mountains rise to elevations in excess of 3800 meters (about 12,470 feet). Tehran also lies on the northwestern edge of Iran's large barren interior basin. To the west and south of the city barren desert hills and plains abound.

The winter months (December through March) are cold with mean daily minimum temperatures ranging from almost -2°C (28°F) to about 4°C (39°F). Mean daily maximum temperatures range from about 8°C (46°F) to 15°C (59°F). The majority of winter days are sunny and bright, but cold. There are cloudy periods, however; Tehran receives about 200 millimeters (eight inches) of precipitation annually of which more than half comes during the winter, occasionally in the form of snow.

This precipitation is associated with the eastward passage of low pressure systems from the Mediterranean basin which usually lose their punch over the high mountains of western and northwestern Iran. Snowfall in Tehran can vary greatly from winter to winter depending on the strength of these frontal systems. Snowfall can also vary from north to south within the city owing to the differences in elevation. Northern section often receives precipitation in the form of snow while southern Tehran receives rain. Although strong winds do occasionally occur during the winter, the wind-chill factor is thought to be negligible.

* See attached tables for detailed climatic data.

Tehran/Mehrabad (Airport)
Mean Daily Minimum Temperature (°C)

<u>January</u>	<u>February</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>August</u>	<u>September</u>	<u>October</u>	<u>November</u>	<u>December</u>	<u>Annual</u>
-1.7	0.0	4.4	9.4	15.0	19.4	22.2	21.7	17.8	11.7	5.0	0.6	10.6

Tehran/Mehrabad (Airport)
Mean Daily Maximum Temperature (°C)

7.8	10.6	15.0	21.7	27.2	33.3	36.1	35.0	31.1	24.4	15.0	10.0	22.2
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Tehran/Mehrabad (Airport)
Absolute Daily Minimum Temperature (°C)

-16.1	-11.1	-5.6	0.0	2.8	8.9	13.9	11.1	10.6	3.3	-7.2	-7.8	-16.1
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Tehran/Mehrabad (Airport)
Absolute Daily Maximum Temperature (°C)

17.2	22.8	26.1	32.2	36.1	39.4	42.2	41.7	37.8	31.7	24.4	18.3	42.2
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Tehran/Mehrabad (Airport)
Mean Relative Humidity (%)

Hours	January	February	March	April	May	June	July	August	September	October	November	December	Annual
0600	75	69	65	59	48	36	35	32	31 ⁵	46	67	77	54
1200	50	45	38	35	27	19	20	19	21	27	45	54	33
1500	51	42	34	27	23	16	18	17	18	25	39	50	30

Tehran/Mehrabad (Airport)
Mean Precipitation (Millimeters)
(1 inch = 25.4 mm)

January	February	March	April	May	June	July	August	September	October	November	December	Annual
35.6	27.9	27.9	33.0	12.7	2.5	<1.3	2.5	2.5	5.1	25.4	25.4	200.7

Tehran/Mehrabad (Airport)
Mean Number of Days with Snowfall

3	2	<1	0	0	0	0	0	0	0	1	2	9
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Tehran/Mehrabad (Airport)
Mean Number of Days with Total
Cloud Cover 6/8 or More

7	9	9	9	6	1	1	<1	<1	3	8	9	62
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Tehran/Mehrabad (Airport)
Direction, Mean Wind Speed (KPH), and Percentage Frequency
of Prevailing Surface Wind at Specified Hours

Hours	January	February	March	April	May	June	July	August	September	October	November	December
0600	N/7.4/32	N/7.4/29	N/9.3/25	NE/9.3/24	Calm/21%	NW/11.1/21	W/9.3/24	NW/9.3/22	N/9.3/41	N/9.3/50	N/7.4/30	N/7.4/31
1500	W/20.4/33	W/24.1/41	W/24.1/38	W/24.1/39	W/26.0/36	W/24.1/23	S/11.1/30	S/11.1/32	S/9.3/26	W/20.4/28	W/20.4/32	W/20.4/29